

# Scope, Cost, & Risk Evaluation – SCoRE

## ***Introduction***

Scope, Cost, & Risk Evaluation (SCoRE) is a peer-level review or “due diligence” analysis on the scope, cost estimate and risks for transportation projects in the State of Washington. The objective of the SCoRE process is to increase confidence in and add value to the project development efforts to date, particularly the estimated cost and schedule for delivery.

The CEVP (Cost Estimate Validation Process) process has been successfully implemented on the WSDOT Urban Corridors Mega Projects during March, April and May of 2002 in a series of intensive one-week workshops. SCoRE applies a similar, but abbreviated and less rigorous, version of the process, including anticipated uncertainty and variability, to other projects.

The SCoRE process is a tool to:

1. Evaluate the current project cost estimate and schedule to deliver;
2. Assist in developing a higher level of confidence in the estimate of cost and time to deliver; and,
3. Identify major areas of potential variability and uncertainty in the defined project that significantly influence the cost estimate and delivery time frame.

The SCoRE process cannot create a project estimate where none exists. For the SCoRE process to be of value, an appropriate level of project development (engineering) is necessary. In almost all cases this means more than “1%” engineering. Likewise, it is not intended to second-guess the existing estimate or substitute for other valuable project development processes, such as focused design reviews or value engineering. However, if ways to add value or alternate project options are identified that may have merit, SCoRE makes them available to the project manager and team for further consideration in the course of project development. Additionally, the identification and quantification of variability and uncertainty may lead to revisions in the strategic management plan for the project.

## ***SCoRE Process***

The SCoRE (Scope, Cost, and Risk Evaluation) process involves two primary tasks: 1) a due diligence review of the project “base” cost estimate, and 2) a modeling of uncertainty (typically driven by risk) to more accurately assign contingencies and allowances as ranges of cost and time that could potentially result from identified major risk and opportunity events, as well as focused design development.

The project development team, or “Project Team,” will accomplish these two tasks with the assistance of a “SCoRE Team” of specialists. The focus of a group of national experts in transportation project design, cost estimating, risk determination, and construction has proven to be a major opportunity for WSDOT to add value to projects. After the Project Team compiles the project data, a workshop is conducted where the SCoRE Team will work with the Project Team in reviewing the current project estimate of cost and time, including the assessment of risk areas. The SCoRE approach removes the contingencies from the base estimate, models their uncertainty and magnitude and provides a project cost, and delivery time, range for the Project Team’s use. This evaluation is provided to the Project Team to utilize for engineering and programming throughout the further development of the project.

The fundamental milestones in the SCoRE process are listed below.

1. Project Team Workshop Preparation
2. SCoRE Team Initial Project Review (screening)
3. Base Estimate evaluation including removal of contingencies
4. Evaluation of project cost range and delivery time frame through modeling of risks and resultant uncertainty

Once the SCoRE workshop preparation material has been received from the Project Team, a joint determination of whether to apply the SCoRE process will be made for each proposed project by WSDOT Management, Project Sponsors, and the SCoRE Team.

### ***SCoRE Workshop Preparation Requirements***

For the best results from the Scope, Cost, and Risk Evaluation process, a project should have plans and project documents that generally describe the scope, character and timeframe of the project, major external factors that are identifiable, and an initial cost estimate prepared by the Project Team for review in conjunction with the SCoRE Team.

The minimum deliverables needed from the Project Team for the SCoRE review are:

1. Project Description
  - One sentence project description
  - One paragraph project description
  - One page project description with project map
2. Project Estimate
  - Summary level project estimate
  - Detailed estimate backup describing units quantities and cost basis
  - Detailed identification of contingencies and allowances included in cost estimate
  - Completed Estimate Basis Questionnaire
3. Project Schedule in a Bar Chart and/or Flow Diagram
4. List of Major Assumptions and Constraints
5. List of Major Risks and Concerns

### ***SCoRE Work Products***

Although the exact Scope, Cost, & Risk Evaluation process will vary on projects given differing levels of project development and unique project characteristics, the following products will be delivered at the end of the SCoRE workshop:

1. A compilation of observations and recommendations in the form of a SCoRE summary that addresses the potential project cost and delivery time ranges and the uncertainties involved.
2. Identification and characterization of the high risk project elements, which will assist Project Teams in developing and applying appropriate mitigation strategies.